IDAHO GROUND WATER QUALITY PLAN

Protecting GROUNDWATER QUALITY IN IDAHO

APPENDIX A
Ground Water Quality Council Responses To Public Comments

This section lists the comments received during the public comment period. The comments are listed individually by exhibitor. Each comment is followed by the Ground Water Quality Council's response, including how that comment has been incorporated into the text of the plan. There are two sections, one listing the written comments received, and another detailing the verbal comments received at the six public hearings held throughout the state.

WRITTEN COMMENTS

Exhibit 1
The comment recommended that the Council seek out a ground water study known as the "Chino Study". Commentor also included a clipping from the Los Angeles Times, dated December 12, 1990 which details the large amounts of manure produced by the Chino Agricultural Preserve and the effect it has had on ground water. Commentor noted that once ground water is contaminated by these means, it will remain contaminated for a long period of time.

Response:
The Ground Water Council recognizes that Confined Animal Feeding Operations (CAFOs) are a potential source of ground water contamination. CAFOs have been addressed in the portion of the plan entitled Agricultural Chemical Source Matrix, Appendix B. The information provided in the Chino Study will also be useful as resource material in the development of ground water regulations.

Exhibit 2
The comment consisted of 63 surveys conducted in the Avondale Subdivision in Hayden Lake, Idaho. The surveys show that problems such as discoloring, poor taste, odor, and stained dishwashers, toilets, and laundry are being encountered by citizens of the subdivision.

Response:
Copies of all surveys have been forwarded for attention and possible action to the DEQ Coeur d'Alene Regional Office which has jurisdiction over public drinking water systems in that area. In instances where illness has been noted, the District Health Department will be notified for investigation of the problem. Since the system is a public drinking water system, it would be regulated under the Idaho Regulations for Public Drinking Water Systems.

Exhibit 3, Paragraph 3
This comment stated an appreciation for having the costs of implementation submitted with the plan, but did not feel that money should be generated for the plan through additional sales taxes.

Response:
The Council has noted your response and will take up the issue of funding sources again at future meetings.

Exhibit 3, Paragraph 4
The comment expressed the need to improve the monitoring program and stressed that the data should be made more accessible to the public.

Response:
The portion of the plan entitled, "Ground Water Quality Monitoring Program" addresses this comment. The plan establishes a geographic information system to store the data which will be accessible to the public upon request.

Exhibit 3, Paragraph 5
The comment states that the comment is unclear in assigning financial responsibility to polluters for cleanup.

Response
The plan attempts to address the issue of assigning financial responsibility to polluters; however, the Council did not feel that the plan could adequately address the issue and recommends separate legislation be drafted on remediation issues.

Exhibit 4, Point 1
Comment suggested the plan could be made stronger if it set water quality standards that include preventative action limits to initiate corrective actions before standards are exceeded.

Response:
The Ground Water Council has chosen to look at trends rather than using single number preventative action limits to trigger a corrective action before a standard is reached. The concept of a trend will be developed further in the Ground Water Quality Regulations. The following statement will be added to the rationale for Policy I-D, Ground Water Quality Standards, which states, "Will not ignore obvious man made chemicals which are not naturally found in ground water."

Exhibit 4, Points 2 and 3
The commentor showed concern over whether enforcement of existing regulations will continue after adoption of the plan or if new enforceable regulations would be adopted. Concern was also voiced about present federal programs not being integrated into the plan.

Response
Existing regulations will continue to be used. They will be evaluated and revised if needed to incorporate ground water protection issues. The state Ground Water Quality Plan and the Federal Sole Source Designation Program are two different programs. The Ground Water Quality Plan looks at protection of ground water as a resource while the federal program looks at ground water as a drinking water source. The Council did not want to incorporate federal programs into a state program as this could bring federal officials into state issues.

Exhibit 4, Point 4
This portion of the comment noted that there was no schedule for implementing the new programs.

Response:
The target dates cannot be finalized until the amount of funding has been established and approved by the legislature.

Exhibit 5, Point 1
The commentor questioned how mining operations would be abandoned once mining in an area was completed. The commentor also felt that the plan should be stricter, particularly in the area of mining. They also wanted the plan to address exploratory mining.

Response:
The issue of abandonment of mines is covered in the last implementation item of Policy II-C on page 32. The implementation portion of the policy calls for the development of further regulations for those mining issues not already addressed. Any regulations which are developed in the future will go through the public notice and comment process which provides an opportunity to make recommendations about specific mining issues.

Exhibit 5, Point 2
This portion of the comment suggests that the Council delete the word practical in Policy II-A, so that segment of the policy would read maximum extent, instead of maximum extent practical.

Response
The phrase "maximum extent practical" is taken directly from Idaho Code §39-102, which states the following goal of the ground water quality protection act, "It is the policy of the state to prevent contamination of ground water from any source to the maximum extent practical." This was the legislators choice of words to express their intent. The Council followed the direction given by the legislature on terminology.

Exhibit 5, Point 3
It was suggested that the Council define "better ways of doing business in all aspects of our society" as used in the plan. This type of phrase could leave loopholes.

Response:
This language could not be found in the plan directly as quoted, even though the concept is inferred throughout the plan. This concept is not meant to imply regulatory or policy boundaries.

Exhibit 5, Point 4
The comment suggests that the Council define responsible parties and assign responsibility for cost of cleanup to the perpetrator, not the taxpayer.

Response:
The plan attempts to address a framework for a definition of responsible party; however, the Council did not feel that the plan could adequately address the issue and recommends separate legislation be drafted. On the issue of forcing the perpetrator to pay for costs of cleanup, the Council agrees, but realizes that this is not always possible.

Exhibit 6, Point 1
The term "best available methods" should be more clearly defined so as to distinguish why the term best available methods was used instead of best available technologies.

Response:
The Council chose to not use the term best available technology to avoid confusion with the Clean Water Act and surface water regulations which utilize best available technologies. The EPA has also specifically defined best available technologies for use in surface water situations. Since the term has traditionally been used in relationship with surface water issues, the term was changed to reflect ground water. The difference between best available methods and best available technologies will further be stated in the plan under Policy I-C, Categorization of Ground Water, in the implementation section.

Exhibit 6, Point 2
The Drinking Water Category lacks incentive to look at best available technologies.

Response:
Policy II-A, Prevention of Ground Water Contamination, provides the incentive to look at best available methods and other preventative measures, while Policy I-C, Categorization of Ground Water, provides clarification of the different categories of ground water.

Exhibit 6, Point 3
Policy IV-C, Local/State Consistency, should remain as written in the draft of the Ground Water Quality Protection Plan; as it provides local units of government with flexibility to implement the plan.

Response:
Due to comments requesting clarification of this policy, the Council has reworded Policy IV-C, Local/State Consistency to read, "The policy of the state of Idaho is that local governments assist in the implementation of the Ground Water Quality Plan under the authorities given them in the Idaho State Constitution and the Idaho Code. Local government may provide ground water protection through mechanisms appropriate to their authority to address local concerns and needs. Such mechanisms should be consistent with state laws and the Ground Water Quality Plan. Further, such local mechanisms should not impose duplicate permitting requirements on the public." The Rationale and Implementation portions of this policy, have also been reworded to coincide with the policy.

Exhibit 7
Commentor voiced strong objections to any further building at the INEL, as current levels of tritium and chromium in the ground water around the INEL already exceed the Federal Drinking Water Standards.

Response:
The comment has been noted by the Ground Water Council.

Exhibit 8
The comment strongly supports Policy IV-C, Local/State Consistency, as written in the draft plan.

Response:
See response to Exhibit 6, Point 3.

Exhibit 9
The commentor related how pesticide laden run-off irrigation water had caused the death of some of his livestock in the Magic Valley.

Response:
This problem would fall under the authority of the surface water regulations rather than this ground water plan. The Ground Water Quality Plan does address the interrelationship of surface and ground water in Policy I-B. Additional language was also added to the rationale for Policy I-B so the sentence now reads, "The intent is to ensure that the quality of ground water that discharges to surface water does not impair identified beneficial uses of the surface water and that surface water infiltration does not impair beneficial uses of ground water."

Exhibit 10
The commentor urged the Council to create stronger preventive and mandatory protection measures rather than the voluntary and educational approach that is taken in the draft of the plan.The voluntary approach makes the plan appear very weak.

Response:
The Ground Water Council, after again considering this issue, disagrees with the prospect of creating only mandatory enforcement measures. The voluntary approach is intended as the first step in the enforcement approach. The voluntary approach includes incentive programs which are the key to making this approach work. If voluntary approaches are ineffective, then mandatory enforcement will be implemented.

Exhibit 11, Point 1
Table 2, on page 28, under "Enforcement Approach When Standards are Exceeded", gives the impression that a problem must occur before regulations may be revised to address the problem.

Response:
Water Quality Regulations currently exist to deal with many programs. Ground Water Quality Regulations including numerical and narrative standards are in the process of being developed, emphasizing that the plan does not wait for problems to occur before addressing them. Sources of contamination will be addressed in a source specific manner within the Ground Water Regulations.

Exhibit 11, Point 2
On page 29, under the third implementation item, language should be added stressing that educational and technical assistance is necessary for regulatory programs as well as voluntary programs.

Response:
The Council agreed with the commentor that the language should be added.

Exhibit 11, Point 3
On page 32, Policy II-C, Mining, the first implementation issue should be charged to read, "IDHW-DEQ in cooperation with IDL...", Since the Idaho Department of Lands is not the expert on ground water quality.

Response:
The Council disagrees and feel that the language should remain as written in the draft plan since IDL is the expert on mining issues.

Exhibit 11, Point 4
The last implementation item under Policy VI-A, Remediation, does not utilize a proactive approach. The language should be changed to direct remediation to be initiated without waiting to develop institutional controls.

Response:
The paragraph was intended to address areas where restoration has been eliminated.

Exhibit 11, Point 5
Commentor noted that Policy VI-B, Liability for Costs of Remediation, under implementation item number 3, ground water should replace contamination in this phrase since ground water is remediated and contamination is not remediated. Also the phrase of the sentence stating, "If a public fund is not established for remediation," is unclear.

Response:
The Council concurred with the suggestion of the commentor. This language will be changed in the final plan.

Exhibit 11, Point 6
In Policy VI-B, implementation item number 5, will the same threshold to have local funding pay for remediation apply to all categories?

Response:
The Council has taken your comment under consideration.

Exhibit 11, Point 7
The introduction to the Agricultural Ground Water Quality Program Progress Report implies that the following section is not a plan but a report of what has been done in the past and what will be used in the future. Also the Information and Education section on page 45 indicates that there are no new strategies, plans, or priorities for the future. What are the future plans for this portion of the program. Next on page 56, fifth component, who will determine whether or not the voluntary involvement is "adequate"? What does the term "adequate" mean? How will the "inner loop" of the feedback loop be emphasized. Page 58, the first paragraph states that there are several sources of funding available for incentive programs. Where is the information listed so people are aware of it?

Response:
The Ground Water Quality Council, after reviewing the section of the plan entitled Agricultural Ground Water Quality Program Progress Report, decided that this section needs additional revisions and has deleted it from the final draft of the plan. The Agricultural/Chemical Subcommittee will continue to work on this item and bring a revised Agricultural Plan back to the Council at a later date for approval.

Exhibit 12, Point 1
The commentor noted that the Best Management Practices (BMPs) need to be more prevention oriented rather than reaction oriented.

Response:
The Agricultural/Chemical subcommittee was directed to address this issue. The subcommitte brought their recommendations to the November, Ground Water Quality Council meeting. The recommendations included a preventative feedback loop alternative to address this concern.

Exhibit 12, Point 2
On page 28, Table 2, the non mandatory programs should have mandatory BMPs which are triggered once declining water quality is identified.

Response:
The feedback loop addresses the triggering of a mandatory BMP if a decline in water quality is identified.

Exhibit 12, Point 3
The commentor recommended the addition of language in the plan to address the interaction between the plan and proper use and disposal of household hazardous wastes.

Response:
The issue is addressed indirectly by Policy III-A, Public Education on Ground Water Quality, and is also included in the "Agricultural Chemical Source Matrix" in Appendix B.

Exhibit 13, Point 1
The plan does not set standards that would trigger preventative management measures before a safe drinking water standard is exceeded.

Response:
See response to Exhibit 4, Point 1.

Exhibit 13, Point 2
Federal programs such as the Sole Source Aquifer Designation Program are not integrated into the plan.

Response:
See response to Exhibit 4, Points 2 and 3.

Exhibit 13, Point 4
There is no schedule to implement any of the new programs.

Response:
See response to Exhibit 4, Point 4.

Exhibit 14, Point 1
Commentor raises the question of how the plan will be funded and enforced.

Response:
The issue of funding has nor yet been decided. Enforcement will be done through the use of existing and future regulations which give enforcement capability to state and local officials on ground water issues.

Exhibit 14, Point 2
How will the INEL be governed?

Response:
This comment is addressed in Policy IV-D, Federal Consistency, which states that "ground water underlying all federally owned lands be provided with the same level of protection from contaminants as other ground water in the state."

Exhibit 14, Point 3
How will the non-point pollution from agriculture be controlled.

Response:
This issue is addressed in Policy II-B, Agricultural Chemical and Nutrient Management.

Exhibit 14, Point 4
How can the use of chemicals in the yard, home, schools, etc. be reduced?

Response:
This issue is addressed indirectly by Policy III-A, Public Education on Ground Water. By educating the public on proper use and disposal of chemicals and alternatives to the chemicals, their use can be reduced or managed more efficiently.

Exhibit 15
The plan needs to be stronger if it is to fully protect the ground water of Idaho.

Response:
The Council feels the Ground Water Quality Plan will adequately protect the state's ground water quality while not hindering ground water beneficial uses.

Exhibit 16, Point 1
The plan needs to incorporate more stringent controls of some chemicals that we know are being used in areas overlying ground water.

Response:
This issue is addressed under Policy I-C, Categorization of Ground Water. The Agricultural Chemical Source Matrix, in Appendix B also addresses this comment.

Exhibit 16, Point 2
Injection wells are not adequately addressed under the existing UIC program. The inspections are set up for once every ten years with no follow through on high bacteria counts when they are encountered.

Response:
It was recommended that this program be reviewed under program evaluations, which is the first implementation item listed under Policy II-A, and revisions be made as needed to address concerns.

Exhibit 16, Point 3
The plan lacks minimal numerical standards, the classification of aquifers which are vulnerable and merit immediate protection under Section 1424(e) of the Safe Drinking Water Act, the safeguards of preventative action limits, and any methods to enforce the protection of ground water.

Response:
Numerical ground water standards and ground water classifications is in the process of being addressed in Ground Water Regulations. The Council decided against the use of preventative action limits in favor of using trends as a means of determining when further action is needed. Finally, the plan is not an enforcement document, but a management document to provide direction for what should be done in ground water protection. Enforcement capabilities are addressed in existing regulations and any future regulations that will be developed.

Exhibit 17
The commentors requested that iron bacteria be added as a microbial requirement in the monitoring plan. They also recommended some numerical standards for ground water.

Response:
The Monitoring Subcommittee looked at the possibility of adding iron bacteria as a microbial requirement in the monitoring plan. The subcommittee recommended that iron bacteria not be added as a microbial requirement since there are no actual health threats from the bacteria and no health limits have been established. The numerical standards which were recommended have been given to the individuals working on Ground Water Quality Standards for consideration.

Exhibit 18
In Policy IV-C, Local/State Consistency, should be refined to incorporate the fact that more stringent ground water quality standards would not be in conflict with the plan.

Response:
The management and operational standards may vary slightly based on the category which the ground water is placed in, but the main purpose of the plan is to maintain one set of ground water quality standards throughout the state for consistency. The term ground water quality standard has been defined in the glossary of the plan.

Exhibit 19
Concern was voiced over the fact that Policy IV-B, Local/State Government Interaction, states that local governments "shall integrate the Ground Water Quality Assurance Plan in their existing programs," while Policy IV-C, Local State Consistency, seems to prohibit local governments from issuing permits for local control and neglects to clearly allow local governments to collect fees.

Response:
This issue is addressed in Idaho Code and will also be included in the funding narrative that goes to the legislature. The Council agrees that funding mechanisms should be made available to provide for local funding of the Ground Water Quality Protection Plan, and a statement clarifying this will be added to the implementation items for Policy IV-B, Local/State Government Interaction.

Exhibit 20, Point 1
Commentor suggested that all "shoulds" in the plan be changed to "shalls", and "woulds" to "wills" to create a stronger plan.

Response:
The Ground Water Council chose by vote to use "should" and "would" in the plan because the Ground Water Quality Protection Act of 1989 says that the plan should make recommendations not mandates.

Exhibit 20, Point 2
The commentor details numerous events which have lead led to the contamination of surface water.

Response:
See response to Exhibit 9.

Exhibit 21
The interpretation was made that Policy IV-C, Local/State Consistency, said that duplicate fees cannot be imposed. Commentor would like this point clarified.

Response:
Policy IV-C does not address or include fees at this time.

Exhibit 22
The commentor feels that the portion of Policy IV-C, Local/State Consistency, stating, "do not conflict with" should remain in the final draft of the plan and not be reworded.

Response:
See response to Exhibit 6, Point 3.

Exhibit 23
The commentor supports Policy IV-C, Local/State Consistency, and thinks it should be retained as written in the draft plan.

Response:
See response to Exhibit 6, Point 3.

Exhibit 24, Point 1
The commentor would like to see a "zero or no degradation" approach rather than the current philosophy which allows minimal amounts of deterioration of ground water quality.

Response:
The philosophy chosen by the Ground Water Quality Council reflects an overall antidegradation approach rather than a zero-degradation, since zero-degradation eliminates many activities which the population depends on like sewage systems, farming, etc.

Exhibit 24, Point 2
No clear statements exist in the mining feedback loops or in the plan to address exploratory drilling. Also the mining policy is unacceptable.

Response:
This issue has been referred to the program evaluation implementation item under Policy II-A, Prevention of Ground Water Contamination.

Exhibit 24, Point 3
The point of compliance concept needs further clarification as used in the Ground Water Quality Plan.

Response:
Point of compliance will be detailed fully in the Ground Water Quality Regulations, and the Council does not feel it necessary to add additional language for this concept in the plan.

Exhibit 25, Point 1
The commentor does not feel that local governments should be able to implement and adopt ground water quality policies, ordinances and BMPs as allowed by Policies IV-B, Local/State Government Interaction, and IV-C, Local/State Consistency.

Response:
See response to Exhibit 6, Point 3.

Exhibit 25, Point 2
The commentor encouraged the state to develop and set clear time tables for implementing the various programs.

Response:
See response to Exhibit 4, Point 4.

Exhibit 26, Point 1
The implementation recommendations under Policy IV-A, Public Participation should be changed to allow further incorporation of public comment in the development of existing and future rules, regulations and guidelines.

Response:
The Council has reviewed this issue and has strengthened this concept by changing the rationale to read, "Public participation is essential to encourage public input and acceptance of ground water..."

Exhibit 26, Point 2
Language should be added to Policy IV-B, Local/State Government Interaction, which would allow a funding mechanism to be developed and provided to local governments for implementation of the plan.

Response:
See response to Exhibit 19.

Exhibit 26, Point 3
Language should be added to Policy IV-C, Local/State Consistency, which says, "the regulatory development process should incorporate a case-by-case analysis, review or waiver to address local issues or problems in order to allow adequate response to those issues."

Response:
This issue will be looked at during Ground Water Quality Regulation development.

Exhibit 26, Point 4
This comment encourages funding for the regional and local monitoring portions of the monitoring program due to the importance of monitoring in addressing ground water contamination and remediation.

Response:
The Council will take this comment into account when setting funding priorities.

Exhibit 26, Point 5
Policy VI-B, Liability for Costs of Remediation, provides a foundation for addressing ground water remediation, but does not provide protection for local governments who may acquire contaminated property through condemnation or reversion.

Response:
This issue needs to be addressed in separate legislation which is being developed by a subcommittee to address remediation issues, including identifying responsible parties. Upon completion, the Bill will be reviewed by the full Council, and submitted to the legislature.

Exhibit 27, Point 1
On page 13, under Goals and Requirements of the Ground Water Quality Plan, the language should be changed to read, "All ground water shall be protected as a potable water supply unless it can be demonstrated that the existing quality and available quantity are insufficient to support such use."

Response:
Idaho Code §39-102 establishes the goal as it reads in the plan on page 13.

Exhibit 27, Point 2
Policy I-A should be changed to read, "The policy of the state of Idaho is to protect the existing high quality of the state's ground water as a potable water supply unless the existing quality and/or quantity are insufficient to support such use."

Response:
The Council feels that this would allow too much degradation of the state's ground water, since drinking water does not require the highest quality for all beneficial uses.

Exhibit 27, Point 3
Policy I-C, Categorization of Ground Water, should be changed to read, "The policy of the state of Idaho is to provide protection for the state's ground water resources. A ground water categorization system will be established for aquifers or portions of aquifers. This categorization system will be based on ground water vulnerability to contamination, existing and protected future beneficial uses of ground water (including community development) and existing water quality and quantity." Also change the rationale on the same policy to read, "The level of protection afforded ground water should be consistent with its present water quality, its vulnerability to contamination and its existing and projected future beneficial uses. Categorization of ground water will allow for different levels of protection in recognition of the unique naturally occurring, characteristics of aquifers and portions of aquifers within the state."

Response:
The plan deals only with quality issues, thus the Council has decided to leave the languages as it was in the draft plan.

Exhibit 27, Point 4
Define significant potential as it is used on page 45 of the plan. Also what will be the trigger value or procedure that initiates remediation?

Response:
The definition of significant potential is a technical decision which should be left to the agencies, since it is a site specific issue. The trigger value should remain flexible so that local criteria also have flexibility.

Exhibit 27, Point 5
The implementation item of Policy VI-A, Remediation, which deals with funding alternatives, should include a mechanism to impose monetary penalties when the responsible party is unwilling to remediate and there is an imminent threat to human health or the environment.

Response:
The issue is already addressed in Idaho Code 39-1086.

Exhibit 27, Point 6
New language should be created for the last implementation item of Policy VI-A, Remediation.

Response:
This implementation item has been changed to read, "Ground water quality which has been degraded by past mining practices should be restored where feasible and appropriate to support identified beneficial uses. Where restoration of such ground water is not feasible or appropriate to support identified beneficial uses, the appropriate level of government shall assure development of controls to prevent ground water use and to prevent contaminant mobility beyond an established zone surrounding the historic mining area."

Exhibit 27, Point 7
The third paragraph on page 58 states that "other techniques" will be used to evaluate BMP's. What will these "other techniques" be?

Response:
This issue will be more completely developed in the portion of the plan entitled Agricultural Ground Water Quality Program.

Exhibit 27, Point 8
In Enclosure II it should be added that the SCS has no enforcement capability and cannot implement any ground water remediation.

Response:
A page break existed which caused confusion on what the SCS's capabilities really are. The page break will be adjusted to prevent further confusion.

Exhibit 28, Point 1
A statement should be added to qualify that the plan only addresses ground water quality issues and not those related to ground water quantity.

Response:
This has been addressed by adding clarifying language to the Executive Summary of the plan.

Exhibit 28, Point 2
The plan should make a bigger distinction between past legal and illegal practices for the purpose of determining liability for remediation. Past legal practices should not be viewed as liable as past illegal practices.

Response:
It is beyond the scope of the plan to assess the degree of liability. This issue will have to be considered in the Remediation bill currently being drafted.

Exhibit 28, Point 3
Item 2 on page 25 should be changed to read, "Initially all aquifers with activities having the potential to impact ground water will be categorized. Categorization for areas which currently have no activities would be initiated when an activity with the potential to impact ground water is proposed over an uncategorized aquifer. Initial categories should be adopted by rule of the Board of Health and Welfare with full opportunity for public comment as provided under the Administrative Procedures Act. State agencies should not delay actions, or deny or delay the processing or approval of any permit for an activity based on the fact that the Board has not completed the initial categorization process."

Response:
The language has been changed to read as suggested.

Exhibit 28, Point 4
Item 3 on page 25 should be revised to read, "The process should not be so lengthy that it is prohibitive. Time frames should be established in the regulations so that if the Board fails to meet those time frames the petitioners request for recategorization would be automatically granted."

Response:
The language has been revised to read, "The process should not be so lengthy that it is prohibitive. Time frames should be established in the regulations and conditions specified if time frames are not met." The idea of an automatic recategorization being granted was not supported.

Exhibit 29, Point 1
The commentor agreed with Policy II-B, Agricultural and Nutrient Management, but disagrees with the Rationale statement which would implement mandatory best management practices if voluntary best management practices are not adequate. The commentor also stressed the importance of education and monitoring and stressed that these two items be a priority to receive funding.

Response:
See response to Exhibit 12, Point1.

Exhibit 29, Point 2
The commentor agreed with the wording in Policy IV-C, Local/State Consistency, but does not feel that they should be able to impose duplicative regulations which may conflict with the irrigation district boundaries.

Response:
See response to Exhibit 6, Point 3.

Exhibit 29, Point 3
The plan does not carefully address the issue of liability.

Response:
See response to Exhibit 28, Point 2.

Exhibit 30, Point 1
The commentors objected to the Policy IV-C, feeling that it implies local governments lack the ability to determine their own "destiny", and implies certain duties on local government, while denying them the ability to take action in these areas.

Response:
See response to Exhibit 6, Point 3.

Exhibit 30, Point 2
The implementation section of Policy VI-B, Liability for Costs of Remediation, states when the person who caused the contamination cannot be found, "the general public, through state or local funding will have to pay for any remediation that occurs." The commentors do not find this statement acceptable to local governments of Idaho as it may bankrupt many of the smaller local governments.

Response:
See response to Exhibit 26, Point 5.

Exhibit 31, Point 1
It was recommended that the language in Policy V-E, Environmental Data Management System, be deleted which says, "as to its level of confidence and utility for specific purposes."

Response:
This section of the sentence has been deleted as requested.

Exhibit 31, Point 2
The language on page 52 should be changed to read, "levels of confidence will be assigned based on several factors including the purpose and potential uses of the data." The words "the purposes and potential uses of the data" should be removed from the text.

Response:
The wording has been deleted as requested.

Exhibit 32,
The interrelationship of the plan with other documents such as the 319 Non Point Assessment, Water Quality Standards, Ag Pollution Abatement Plan, Idaho Water Use Plan should be shown.

Response:
The paragraph has been added to the Introduction and Executive Summary of the plan clarifying the issue.

Exhibit 33, Point 1
There is concern over Policy II-B, Agricultural Chemical and Nutrient Management, that even if farmers are applying voluntary BMPs, agencies may apply mandatory BMPs if the voluntary ones are not working. Good education and use of the feedback loop are the best means to prevent ground water pollution.

Response:
See response to Exhibit 12, Point 1.

Exhibit 33, Point 2
The issue of liability is not fully addressed in the draft Policy VI-B, Liability for Costs of Remediation.

Response:
See response to Exhibit 26, Point 5.

Exhibit 34, Point 1
Preventative action limits are needed as a means to ensure prevention of ground water contamination.

Response:
See response to Exhibit 16, Point 3

Exhibit 34, Point 2
Land use controls should be adopted as part of the ground water protection plan as in Connecticut and Massachusetts.

Response:
The statute for the land use plan will be referenced and incorporated into the plan under Policy IV-B, Local/State Government Interaction, implementation section.

Exhibit 35
Idaho Department of Transportation injection wells and storm drains should be plugged, and all injection wells must be phased out. Also the plan is weak and will not adequately protect the state's ground water.

Response:
The issue of injection wells will be reviewed under the program evaluation and implementation item under Policy II-A, Prevention of Ground Water Contamination.

Exhibit 36
Governmental agencies must be held as accountable as private citizens for contamination of ground water.

Response:
The plan already addresses this issue and concurs with the commentors suggestions.

A few comments were received after the public comment deadline had passed. Even though these comments are not specifically detailed and an exact response shown, they have been reviewed and addressed where appropriate by the Council.

VERBAL COMMENTS

Idaho Falls Public Hearing

1. Commentor is glad to see that the program is voluntary, and would like to see it continue in this fashion. There was also a concern about the possibility of conflict between the Ground Water Quality Plan, the Surface Water Act implemented by EPA, and the use of BMPs.

Response:
A paragraph has been added to the Introduction and Executive Summary of the plan clarifying how it will interact with other documents. The Council has also noted your feelings on the voluntary aspects of the plan.

2. The commentor felt that the proposed budget for implementing the plan is somewhat low. It was also noted that that there needs to be some type of document (Memorandums of Understanding) or Agreement written up between the state and the federal agencies or we will not get cooperation from the federal government. Finally, the remediation issue needs to be addressed quickly as there are many problems existing in this area. The public should not have to pay for cleanup. More needs to be done to prevent these problems from occurring.

Response:
This issue of remediation and liability needs to be addressed in separate legislation which is being developed by a subcommittee to address the remediation issues of responsible parties. Upon completion, the Bill will be reviewed by the full Council and submitted to the legislature. In drafting this Bill, the Council will take your comments into account. Also, the issue of funding has not been completely determined, and the amount detailed in Enclosure II is just an estimate.

3. A written comment was submitted which the included Material Safety Data Sheet for Sanafoam® Vaporooter®II.

Response:
The Council has taken your comment under consideration.

Pocatello Public Hearing

1. Some positive aspects of the plan listed by this commentor included: proposed educational programs on ground water, increased funding for monitoring, encouragement for local governments to develop ground water contamination prevention programs. The plan proposes ground water standards, but these standards are needed now. Also the plan needs to incorporate preventative management triggers, instead of waiting until health standards are exceeded. The plan does not integrate the Federal Sole Source Aquifer Program. The plan fails to give guidance on how the programs will be funded. Finally, the plan lacks a schedule to implement any of the new programs.

Response:
Ground Water Quality Regulations are in the process of being developed by IDHW-DEQ. They will undergo a public review and comment process once completed to the draft stage.

The Ground Water Council has chosen to look at trends rather than using single number preventative action limits to trigger a corrective action before a standard is reached. The concept of a trend will be developed further in the Ground Water Quality Regulations. The following statement will also be added to the rationale for Policy I-D, Ground Water Quality Standards, "Will not ignore obvious man-made chemicals which are not naturally found in ground water."

The state Ground Water Quality Plan and the Federal Sole Source Designation Program are two different programs. The Ground Water Quality Plan looks at protection of ground water as a resource, while the federal program looks at ground water as a drinking water source. The Council did not want to incorporate federal programs into a state program as this could bring federal officials into state issues. The Council will add language clarifying the difference in the two programs.

The target dates for implementing new programs and funding mechanisms cannot be finalized until the amount of funding has been established and approved by the legislature.

2. Policy IV-C, Local/State Consistency, should remain as worded in the draft Idaho Ground Water Quality Plan.

Response:
Due to comments requesting clarification of this policy, the Council has reworded Policy IV-C, Local/State Consistency, to read, "The policy of the state of Idaho is that local government assist in the implementation of the Ground Water Quality Plan under the authorities given them in the Idaho State Constitution and the Idaho Code. Local government may provide ground water protection through mechanisms appropriate to their authority to address local concerns and needs. Such mechanisms should be consistent with state laws and the Ground Water Quality Plan. Further, such local mechanisms should not impose duplicate permitting requirements on the public." The rationale and implementation portions of this policy, have also been reworded to coincide with this policy.

3.1 The commentor felt that more emphasis should be placed on best available technologies, instead of just best available methods. A question was also raised about the exact definition of "maximum extent practical".

Response:
The Council chose to not use the term best available technology to avoid confusion with the Clean Water Act and surface water regulations which utilize best available technologies. The EPA has also specifically defined best available technologies for use in surface water situations. Since the term has traditionally been used in relationship with surface water issues, the term was changed to reflect ground water. The difference between best available methods and best available technologies will further be stated in the plan under Policy I-C, Categorization of Ground Water, the implementation section on page 24.

3.2 Will ground water standards be adopted that are above and beyond the current EPA standards?

Response:
Ground Water Quality Regulations are in the process of being drafted; however, whether or not they will have standards above and beyond the EPA standards has not yet been determined.

3.3 In both the mining and agricultural feedback process, how will people be moved from the voluntary approach to the mandatory approach? Also, how much say will the public have in developing the "management strategy" for all phases of mining.

Response:
Detailed flow charts have been added to the plan in order to better show the processes of the feedback loop. The implementation portion of Policy II-C calls for the development of further regulations for those mining issues not already addressed. Any regulations which are developed in the future will go through the public notice and comment process which provides an opportunity to make recommendations about specific mining issues.

3.4 Support was given for maintaining Policy IV-C, Local/State Consistency, as it appears in the draft plan.

Response:
See response to comment 2.

3.5 In the area of remediation, the commentor favored a State Superfund Program which would fund remediation when the responsible parties cannot be identified.

Response:
The Council did not feel that the issue of responsible parties and determination of liability could adequately be addressed in the plan, thus they will be drafting a bill to specifically address the issue. In drafting this bill, your comments will be noted.

Twin Falls Public Hearing

1.1 On page 29, Policy II-A, the statement, "to meet the concerns of those affected," should be added to the policy.

Response:
Policy II-A, Prevention of Ground Water Contamination, is taken directly from Idaho Code §39-102, which states the following goal of the ground water quality protection act, "It is the policy of the state to prevent contamination of ground water from any source to the maximum extent practical." This was the legislators' choice of words to express their intent. The Council followed the direction given by the legislature on terminology.

2.1 Confusion was noted as to what exactly is meant by the statement on page 27, "Nor is it the intent of the Council to initiate preventative action limits".

Response:
The Ground Water Council has chosen to look at trends rather than using single number preventative action limits to trigger corrective action before a standard is reached. The concept of a trend will be developed further in the Ground Water Quality Regulations. The following statement will also be added to the rationale for Policy I-D, Ground Water Quality Standards, "Will not ignore obvious man-made chemicals which are not naturally found in ground water."

3.1 The speaker related many examples of wells which needed replacing, and problems which he had encountered in the well drilling industry. He also noted that it may be valuable to have someone with expertise in this field give input on developing regulations concerning these issues.

Response:
The Council has taken note of your comment.

4.1 The commentor noted page 105, which discusses land applied waste and wastewater. The commentor was concerned about how the level of waste applied is determined. He stressed that this is the best means of disposing of wastes.

Response:
The Council has taken note of your comment.

5.1 Best available technologies should be emphasized instead of best available methods. Incentives for using innovative technologies should also be emphasized.

Response:
The Council chose not to use the term best available technology to avoid confusion with the Clean Water Act and surface water regulations which utilize best available technologies. The EPA has also specifically defined best available technologies for use in surface water situations. Since the term has traditionally been used in relationship with surface water issues, the term was changed to reflect ground water. The difference between best available methods and best available technologies will further be stated in the plan under Policy I-C, Categorization of Ground Water, the implementation section on page 24.

5.2 Will the state adopt standards which are above and beyond the current EPA standards?

Response:
Ground Water Regulations are in the process of being drafted; however, whether or not they will have standards above and beyond the EPA standards has not yet been determined.

5.3 Confusion was stated as to how the feedback process as mentioned in the agricultural and mining policies will work. Also will the public have any say in the development of "management strategies" for the phases of mining.

Response:
Detailed flow charts have been added to the plan in order to better show the processes of the feedback loop. The implementation portion of Policy II-C calls for the development of further regulations for those mining issues not already addressed. Any regulations which are developed in the future will go through the public notice and comment process which provides an opportunity to make recommendations about specific missing issues.

6.1 The comment was made that the quantity of water is equally as important as the quality of water in this area.

Response:
The plan only addresses quality issues, and this has been clarified by adding language to the Executive Summary of the plan. However, the Council also realizes your concern in this area.

Boise Public Hearing

1.1 What is the baseline against which future standards will be measured? Will it be assumed that all constituents are zero, or will the fact that certain constituents may be present naturally be taken into account?

Response:
The Council acknowledged this comment and passed it on to the IDHW-DEQ staff working on the ground water quality standards.

1.2 Feels that Policy II-B, Agricultural Chemical Nutrient Management, which states that contaminants should not move below the root zone, has good intentions but will be difficult to implement.

Response:
The Council has taken note of your comment.

1.3 In Policy VI-B, Liability for Costs of Remediation, farmers who follow pesticide labels and use BMPs as well as businesses following all statutes should be exempt from remediation costs.

Response:
The Council did not feel that the issue of responsible parties and determination of liability could be adequately be addressed in the plan, thus they will be drafting a bill to specifically address this issue. In drafting this bill, your comments will be noted.

2. These comments are identical to those in Exhibit 29, Points 1-3.

3. The plan covers nearly every potential source of contamination, but lacks the power to enforce.

Response:
The plan is not an enforcement document, but a management document to provide direction for what should be done in ground water protection. Enforcement capabilities are addressed in existing regulations and any future regulations that will be developed.

4.1 Policy II-B, Agricultural Chemical and Nutrient Management, and II-C, Mining, are unclear in their discussion of feedback loops. Also, at some points mandatory enforcement will be needed in these areas and regulations will be needed to give this capability.

Response:
Detailed flow charts have been added to the plan in order to better show the processes of the feedback loop. The plan is a management document to provide direction for what should be done in ground water protection. Enforcement capabilities are addressed in existing regulations and any future regulations that will be developed.

4.2 Policy IV-B, Local/State Government Interaction, should provide more monies to local governments to help enforce policies which relate to them.

Response:
The issue is addressed in Idaho Code and will also be concluded in the funding narrative that goes to the legislature. The Council agrees that the funding mechanisms should be made available to provide for local funding of the Ground Water Quality Protection Plan, and a statement clarifying this will be added to the implementation items for Policy IV-B, Local/State Government Interaction.

4.3 Policy IV-C, Local/State Government Interaction, is a very critical policy and should remain as written in the plan.

Response:
Due to comments requesting clarification of this policy, the Council has reworded Policy IV-C, Local/State Consistency to read, “The policy of the state of Idaho is that local governments assist in the implementation of the Ground Water Quality Plan under the authorities given them in the Idaho State Constitution and the Idaho Code. Local government may provide ground water protection through mechanisms appropriate to their authority to address local concerns and needs. Such mechanisms should be consistent with state laws and the Ground Water Quality Plan. Further, such local mechanisms should not impose duplicate permitting requirements on the public.” The rationale and implementation portions of this policy, have also been reworded to coincide with the policy.

5.Commentor suggests that all “shoulds” in the plan be changed to “shalls”, and “woulds” to “wills” to create a stronger plan.

Response:
The Ground Water Council chose by vote to use “should” and “would” in the plan because the Ground Water Quality Protection Act of 1989 says that the plan should make recommendations not mandates.

6.1 There is no explanations of the techniques involved in BMPs, best available methods and best practical methods.

Response:
A more detailed flow chart showing the processes involved in BMPs has been developed and included in the plan. Also, the definitions and explanations of best available methods and best practical methods have been more clearly stated.

6.2 The plan states that trends will be used to indicate the need to modify BMPs. What is the definition of a trend? This appears to be an unattainable trigger which would trip the feedback loop into action.

Response:
The concept of a trend will be developed further in the Ground Water Quality Regulations.

6.3 Ground water quality standards need to be developed simultaneously with the finalization of the plan.

Response:
Ground Water Quality Regulations which will include the numerical standards are in the process of being developed.

Coeur d'Alene Public Hearing

1. Commentor stated that the City of Coeur d'Alene injects large amounts of chemicals into the sewage system which could leach out and affect the aquifer. Also made the request that large fines be set for potentially responsible parties.

2. In Policies IV-B, Local/State Government Interaction, and IV-C, Local/State Consistency, is very important that local governments have the ability to implement programs. Thus, support was given for these two policies as written. The commentor also felt that the Well Head Protection program should be a more important part of these sections.

Response:
Due to the comments requesting clarification of this policy, the Council has reworded Policy IV-C, Local/State Consistency to read, "The policy of the state of Idaho is that local governments assist in the implementation of the Ground Water Quality Plan under the authorities given them in the Idaho State Constitution and the Idaho Code. Local government may provide ground water protection through mechanisms appropriate to their authority to address local concerns and needs. Such mechanisms should be consistent with state laws and the Ground Water Quality Plan. Further, such local mechanisms should not impose duplicate permitting requirements on the public." The rationale and implementation portions of this policy on page 36, have also been reworded to coincide with the policy. Policy IV-B, has remained basically unchanged. The Council also acknowledges your comment concerning the Well Head Protection Program.

3. See Exhibit 8 of the written comments.

4. Concern was voiced about Policy I-C, Categorization of Ground Water. The commentor felt that drinking water deserved more protection than best practical methods offered.

Response:
The concept of best practical methods has been more clearly defined to show exactly what is meant by this phrase. The Drinking Water categorization is only meant as a strategy to manage certain ground waters which are used for drinking water which are not as susceptible to contamination. It does not mean that all ground waters used for drinking water will only be managed with best practical technologies.

4.2 The commentor questions the use of voluntary compliance in Policies II-B, Agricultural Chemical and Nutrient Management, and II-C, Mining. It was mentioned that it may be much easier simply to put the mandatory programs into place to start with.

Response:
The Ground Water Council, after again considering this issue, disagrees with the prospect of creating only mandatory enforcement measures. The voluntary approach is intended as the first step in the enforcement approach. The voluntary approach includes incentive programs which are the key to making this approach work. If voluntary approaches are ineffective, then mandatory enforcement will be implemented.

5.1 Policy I-C, Categorization of Ground Water, does not emphasize best available technologies, but instead talks about best management practices.

Response:
The Council chose not to use the term best available technology to avoid confusion with the Clean Water Act and surface water regulations which utilize best available technologies. The EPA has also specifically defined best available technologies for use in surface water situations. Since the term has traditionally been used in relationship with surface water issues, the term was changed to reflect ground water. The difference between best available methods and best available technologies will further be stated in the plan under Policy I-C, Categorization of Ground Water, the implementation section on page 24.

5.2 Support was given for Policy IV-B, Local/State Interaction, and Policy IV-C, Local State Consistency, as it appears in the draft plan.

Response:
Due to comments requesting clarification of this policy, the Council has reworded Policy IV-C, Local/State Consistency, to read, “The policy of the state of Idaho is that local governments assist in the implementation of the Ground Water Quality Plan under the authorities given them in the Idaho State Constitution and the Idaho Code. Local government may provide ground water protection through mechanisms appropriate to their authority to address local concerns and needs. Such mechanisms should be consistent with state laws and the Ground Water Quality Plan. Further, such local mechanisms should not impose duplicate permitting requirements on the public.” The rationale and implementation portions of this policy, have also been reworded to coincide with the policy. Policy IV-B has remained basically unchanged.

6. Numerous comments were given regarding problems with iron bacteria in the ground water which are seriously affecting the drinking water quality in the area.

Response:
The Council acknowledges the many comments it has received on this issue. However, the Ground Water Quality Plan does not specifically address this issue. The DEQ Coeur d'Alene Field Office has jurisdiction over public drinking water systems in that area. The comments have been forwarded to that office, which has the authority to deal with the problem.

Lewiston Public Hearing

1.1 The commentor noted some confusing aspects of the categorization process and what standards will be used for each one.

Response:
The standards may vary slightly based on the category which the ground water is placed in, but the main purpose of the plan is to maintain one set of Ground Water Quality Standards throughout the state for consistency. The term standards will be defined in the glossary of the plan.

1.2 The plan does not adequately address mining issues.

Response:
The implementation portion of Policy II-C calls for the development of further regulations for those mining issues not already addressed. Any regulations which are developed in the future will go through the public notice and comment process which provides an opportunity to make recommendations about specific mining issues.

1.3 The technical review committee established on page 56 in the Ground Water Quality Monitoring Program includes hydrologists from various state agencies and a member from affected industries, but it does not include a member of the public to give public input.

Response:
The wording in the Ground Water Data Technical Review Committee Section has been expanded to include at least one member from industry and one member from the general public.

2.1 Commentor stated that regulations regarding mining and exploratory drilling need to be developed.

Response:
See Response to 1.2 above.

3. Commentor suggested that all "shoulds" in the plan be changed to "shalls" and "woulds" to "wills" to create a stronger plan, especially as pertains to mining.

Response:
The Ground Water Council chose by vote to use "should" and "would" in the plan because the Ground Water Quality Protection Act of 1989 says that the plan should make recommendations not mandates.

4. The commentor noted that the issue of spills occurring along roads and rivers was not addressed anywhere in the plan.

Response:
The Council has taken your comment under consideration.

5. The plan does not integrate the Federal Sole Source Aquifer Program and other state and federal programs, or suggest the definitive legislation needed to force the federal government to change its ways.

Response:
The state Ground Water Quality Plan and the Federal Sole Source Designation Program are two different programs. The Ground Water Quality Plan looks at protection of ground water as a resource while the federal program looks at ground water as a drinking water source. The Council did not want to incorporate federal programs into a state program as this could bring federal officials into state issues. Also the issue of federal consistency is addressed in Policy IV-D, Federal Consistency.

AGRICULTURAL CHEMICAL STORAGE AND HANDLING

Potential Agricultural Chemical Source	Ground Water Quality Impact Concerns	Existing Programs Pertinent to Source	Recommendations to Address Program Deficiencies/Agricultural Chemical Policy Number
1. AGRICULTURAL CHEMICAL STORAGE AND HANDLING **(any site or facility upon which agricultural chemicals are being stored which may include commercial, on-farm, residential locales)**	Leakage or spills from storage containers and tanks as well as agrichemical-laden surface water runoff at facilities that lack adequate containment measures.	1. FIFRA; label requirements. EPA. IDA. 2. Idaho state pesticide use regulations (Section 15) IDA. 3. Local fire code and building ordinances. State and local fire marshall. 4. Recommended guidelines presented in federal and state documents, agricultural journals and from the agrichemical industry. 5. UST regulations, EPA, DEQ. 6. Drinking water standards for community and non-community water supply wells. EPA, DEQ, IDWR. 7. RCRA; contaminated soils from commercial applicator storage related spills. EPA, IDA, DEQ.	1. Evaluate existing information and develop standardized guidelines. IDA, Ground Water Review team (GWR). Policy II-B. 2. Broaden scope of applicability Section 15 regulations. IDA. Policy II-B. 3. Develop state regulations for containment measures including SPCC plans at larger facilities. IERC. 4. Develop standardized guidelines for containment design. IDA. Policy II-B. 5. EPA to finalize storage regulations (CFR Part 165). EPA. Policy II-B. 6. Develop education and information dissemination programs at all levels. SCS, University of Idaho, CES, DEQ, IDA, Industry, IDWR. Policy II-B. 7. Expand wellhead protection. IDA, DEQ, local EPA, IDWR. Policy II-A. 8. Development of a State Pesticide Management Plan (SMP). IDA lead. Policy II-B. 9. Coordinate siting of agricultural chemical storage facilities with local planning and zoning entities. IDA, DEQ, EPA. Policy II-B.2.

Potential Agricultural Chemical Source	Ground Water Quality Impact Concerns	Existing Programs Pertinent to Source	Recommendations to Address Program Deficiencies/Agricultural Chemical Policy Number
2. AGRICULTURAL CHEMICAL MIXING AND LOADING FOR APPLICATION **(includes both permanent and occasionally used sites where agricultural chemicals are prepared for application; includes commercial and on-farm locales)**	Uncontained leakage and spills during mixing and loading, activities, and backsiphoning into water source.	1. Recommended guidelines presented in federal and state documents, agricultural journals and from the agrichemical industry. 2. RCRA reinstate recycling and reuse provisions. EPA, IDA, DEQ, Industry. 3. FIFRA; Label requirements for missing procedures. EPA, IDA.	1. Evaluate existing information and develop standardized guidelines. IDA, GWR team. Policy II-B. 2. Develop educational and informational programs at all levels. SCS, University of Idaho, CES, DEQ, IDA, Industry. Policy II-B. 3. Develop state regulations/guidelines for proper mixing and load ing procedures. EPA, Industry, University of Idaho. Policy II-B. 4. Develop design standards for mixing and loading areas (i.e., containment, impervious pads, closed mixing). IDA, Industry, EPA, DEQ. Policy II-B. 5. EPA to finalize mixing and load ing regulations. (CFR Part 165) EPA. Policy II-B. 6. Expand wellhead protection at all levels. DEQ, IDA, Local EPA, IDWR. Policy II-A. 7. Development of SMP. IDA lead. Policy II-B.

Potential Agricultural Chemical Source	Ground Water Quality Impact Concerns	Existing Programs Pertinent to Source	Recommendations to Address Program Deficiencies/Agricultural Chemical Policy Number
3. AGRICULTURAL CHEMICAL APPLICATION/ AGRICULTURAL PRACTICES **(application methods, rates and timing of agricultural chemical and associated cultural practices such as crop rotation, tillage, and irrigation which influence concentrations and mobility of applied agricultural chemicals)**	Infiltration of agricultural chemicals or their chemical constituents below the crop root zone, or entry by direct pathways such as poorly constructed wells and surface waters which are hydrologically connected to ground water.	1. BMPs, SCS: Pest, Nutrient, and Irrigation water management plans, conservation cropping practice. SCC lead and technical committee. 2. SCS, University of Idaho, CES, and Bureau of Reclamation irrigation management guidelines. 3. Recommended guidelines presented in federal and state documents agricultural journals, and from the agrichemical industry. 4. FIFRA; labeling requirements: cultural practices restriction (i.e., tillage). EPA, IDA, University of Idaho. 5. IDA; Chapter 34, Pesticide Law. IDA. 6. 1990 Farm Bill Water Quality Plan Provisions. USDA, University of Idaho, DEQ, IDA, EPA, SCD.	1. Develop a cooperative agreement between local Soil Conservation Districts and an operator that provides for developing a water quality management plan that addresses surface water and ground water pollution sources and satisfies all applicable state and federal requirements for water quality protection which includes the implementation of BMPs. Local SCDs. Policy II-B. 2. Develop and update ground water quality protection BMP's for agricultural chemical application/ cultural practices. SCC lead & Technical committee. Policy II-B. 3. Coordinate irrigation programs and other BMPs within CES, SCS, Bureau of Reclamation, IDWR. Policy II-B. 4. Develop and implement a SMP. IDA, DEQ, EPA. Policy II-B. 5. Address ground water quality protection in the revision of the APAP. SCC, lead and State Agricultural Water Quality Advisory Committee. Policy II-B. 6. Encourage expansion of SAWQP for ground water projects. IDA, Industry, DEQ, Policy II-B.

Potential Agricultural Chemical Source	Ground Water Quality Impact Concerns	Existing Programs Pertinent to Source	Recommendations to Address Program Deficiencies/Agricultural Chemical Policy Number
3. AGRICULTURAL CHEMICAL APPLICATION/ AGRICULTURAL PRACTICES **(Continued)**		7. IDWR-well construction standards, well driller licensing. 8. IDWR-water rights season of diversion.	7. Develop informational, educational and research programs (especially promote development and distribution of ground water protection handbooks: Pest, Nutrient, and Irrigation Management) which address ground water protection from agricultural chemical spills. All entities. Policy II-B. 8. Accelerate and continue federal projects such as USDA Ground water demonstration projects. USDA lead, SCS, CES, ASCS, SCD, IDA, Industry, IDWR, and DEQ. Policy II-B. 9. Encourage land user participation in SCD and other local programs that may provide BMP planning, implementation and technical assistance. All entities. Policy II-B. 10. Encourage expansion and continuation of privately (i.e. Farm Bureau) and publicly sponsored ground water quality programs including pesticide use information, vulnerability mapping and others. All entities. Policy II-B.

Potential Agricultural Chemical Source	Ground Water Quality Impact Concerns	Existing Programs Pertinent to Source	Recommendations to Address Program Deficiencies/Agricultural Chemical Policy Number
4. CAFO's **(NPDES permitted and nonpermitted concentrated animal feeding operations of all sizes and all animals excluding aquaculture; i.e., dairies, feedlots, hog operations, etc.)**	Infiltration and runoff from CAFO's with inadequately designed feedlots and waste storage structures.	1. EPA; NPDES permit, inspection. EPA, DEQ. 2. Idaho waste management guidelines for concentrated animal feeding operations. DEQ, technical advisory committee. 3. Regulations; compliance checks and complaint response relating to Idaho water quality standards. DEQ. 4. Technical assistance for waste management system evaluation and design. ASCS, SCS, SCD. 5. Financial/cost share assistance for implementation. ASCS, SCS-RCD, SAWQP. 6. Rules and regulations governing grade A pasteurized milk program. IDA.	1. SCD's should include an inventory of statewide CAFO operations in their five year program. SCD. Policy II-B. 2. Establish a monitoring and research program to determine the degree of CAFO impacts on ground water quality. CES/DEQ, IWRRI. Policy II-B. 3. Research to identify alternative methods of waste treatment and management. University of Idaho, SCS, DEQ, Industry. Policy II-B. 4. Develop informational and educational programs for ground water protection from CAFO's at all levels. Policy II-B. 5. Provide additional personnel for technical assistance to design and implement CAFO waste management systems. SCS, DEQ, IDA. Policy II-B. 6. Provide financial/cost share assistance for implementation of CAFO waste management systems. ASCS, SCS-RCD, SAWQP. Policy II-B.

Potential Agricultural Chemical Source	Ground Water Quality Impact Concerns	Existing Programs Pertinent to Source	Recommendations to Address Program Deficiencies/Agricultural Chemical Policy Number
4. CAFO's **(Continued)**		7. IDA dairy laws for grade B operations - IDA Dairy Bureau, SCS, CES, private consultants, DEQ. 8. IDWR water right permitting.	7. Address the ground water quality protection shortcomings of the NPDES permit. DEQ, EPA. Policy II-B. 8. Coordinate requirements of all agencies into CAFO management systems. SCC. Policy II-B. 9. Expand and promote Idaho waste management guidelines for CAFO's to address ground water quality protection. DEQ lead. Policy II-B.

Potential Agricultural Chemical Source	Ground Water Quality Impact Concerns	Existing Programs Pertinent to Source	Recommendations to Address Program Deficiencies/Agricultural Chemical Policy Number
5. AGRICULTURAL CHEMICAL WASTE DISPOSAL **(CONTAINERS AND UNUSED PRODUCT)** **(all commercial, on-farm, residential entities using agricultural chemicals)**	Improper disposal of agricultural chemical containers and unused product	Containers: 1. FIFRA label requirements. IDA, EPA. 2. CES, EPA recommended practices. CES, IDA, DEQ. 3. DEQ Regulations small generator/hazardous materials regulations. DEQ, district health, local governments. 4. Household hazardous collection programs. DEQ, local government, industry. Unused Product: 1. RCRA; disposal of hazardous wastes which apply to agricultural chemicals and unrinsed containers. DEQ, EPA. 2. FIFRA label requirements. IDA, EPA. 3. State authority for IDA to develop regulations (Chapter 34). IDA. 4. Idaho's Rules and Regulations; construction and use of injection wells. IDWR, EPA.	1. Promote informational and educational programs to address proper disposal of agricultural chemical containers and unused product. At all levels. Policy II-B. 2. Evaluate effectiveness of existing programs/regulations for ground water quality protection by appropriate agencies/industry. Ground water review team. Policy II-B. 3. EPA to finalize disposal regulations (CFR Part 165). EPA. Policy II-B. 4. Development of an SMP. IDA lead. Policy II-B.

Potential Agricultural Chemical Source	Ground Water Quality Impact Concerns	Existing Programs Pertinent to Source	Recommendations to Address Program Deficiencies/Agricultural Chemical Policy Number
6. AQUACULTURE WASTE MANAGEMENT PRACTICES **(storage and handling of waste generated from the controlled cultivation of aquatic plants and animals)**	Infiltration and wastewater runoff from inadequately constructed waste storage structures.	1. EPA; NPDES permit, inspection. EPA, DEQ. 2. Technical assistance with facility design and operations from Idaho Aquaculture association, trade representatives, and publications. Industry. 3. Idaho wastewater treatment requirements. DEQ. 4. BMPs; system management. 5. Public interest criteria of water rights. IDWR.	1. Develop design standards for waste storage ponds/lagoons. DEQ, SCS, IDA. Policy II-B. 2. Develop educational and informational programs for aquaculture waste management practices at all levels. Policy II-B. 3. Address the ground water quality protection shortcomings of the NPDES permit. DEQ, EPA. Policy II-B. 4. Promote research to identify alternative methods of waste treatment and management. University of Idaho, DEQ, SCS, Industry. Policy II-B. 5. Develop informational and educational programs for ground water protection from aquaculture practices. All levels. Policy II-B. 6. Evaluate appropriateness of modifying the Idaho water quality storage and wastewater treatment requirements. DEQ lead. Policy II-B.

Potential Agricultural Chemical Source	Ground Water Quality Impact Concerns	Existing Programs Pertinent to Source	Recommendations to Address Program Deficiencies/Agricultural Chemical Policy Number
7. INJECTION WELLS AND OTHER UNDERGROUND DISPOSAL METHODS **(wells or other methods used to dispose of irrigation tail water and other runoff water in which discharge is directly into the ground water or will likely migrate to the ground water)**	Disposal of irrigation tail water or other runoff water which contains agricultural chemicals into unpermitted, poorly maintained, and improperly closed or unauthorized abandoned disposal wells, and lava tubes, fractured rock, gravel pits, etc.	1. Underground Injection Control (UIC) Program; exercises primacy that EPA granted Idaho in 1984 under the SDWA to regulate underground injection. IDWR, EPA. 2. Idahos rules and regulations; construction and use of injection wells. IDWR, EPA. 3. Idaho's well abandonment and well construction standards. IDWR, EPA. 4. Operation Outreach; a program to educate injection well users, government officials and the public of alternatives to injection wells, as well as mitigation measures and proper abandonment procedures. IDWR, EPA.	1. Promote, develop and revise BMPs in regard to increasing water quality and decreasing water quantity of irrigation tail water and other runoff water entering injection wells and other disposal systems. SCC technical committee. Policy II-B. 2. Continue to improve educational and informational efforts. IDWR, EPA. Policy II-B. 3. Identify contributors responsible for low water quality injectate and require that they share responsibility with owner/operator when more than one person, party, or entity utilizes an injection well. IDWR. Policy II-B. 4. Ascertain the effect of injection well use on ground water quality by obtaining support for research to determine the fate of contaminants entering the subsurface environment though injection wells. IDWR, Univeruty of Idaho, IFBF. Policy II-B. 5. Develop guidelines and/or regulations for disposal systems that are not regulated under existing Policy II-B.

Potential Agricultural Chemical Source	Ground Water Quality Impact Concerns	Existing Programs Pertinent to Source	Recommendations to Address Program Deficiencies/Agricultural Chemical Policy Number
7. INJECTION WELLS AND OTHER UNDERGROUND DISPOSAL METHODS **(Continued)**			6. Encourage land user participation in SCD and other local programs that may provide BMP planning, implementation, and technical assistance. SCD. Policy II-B. 7. Evaluate and revise regulations as necessary to provide increased protection from injection wells and other disposal methods; strengthen compliance monitoring and enforcement efforts by obtaining support for increased well inspections, more detailed injectate characterization, emergency response capability, and penalties or well closure. IDWR, EPA.

Potential Agricultural Chemical Source	Ground Water Quality Impact Concerns	Existing Programs Pertinent to Source	Recommendations to Address Program Deficiencies/Agricultural Chemical Policy Number
8. AGRICULTURAL CHEMICAL SPILLS **(uncontained releases that occur during storage, handling, mixing, loading, and transportation of agricultural chemicals)**	Infiltration of a release or its chemical constituents through the unsaturated zone, or entry by direct pathways such as poorly constructed wells and surface waters which are hydrologically connected to ground water.	1. Idaho hazardous materials incident command and response support plan. IERC. 2. SARA, Title III. IERC. 3. FIFRA; packaging. EPA. 4. DOT; transportation requirements. DOT, IDT. 5. RCRA; contaminated media from commercial spills/leaks. DEQ, EPA. 6. Recently passed legislation addressing agricultural chemical spills. 7. Recommended guidelines presented in federal and state documents, agricultural journals and from the agrichemical industry. 8. IDWR well construction and injection well (UIC) program. 9. IDWR well construction and Injection Well (UIC) Program.	1. Develop guidelines and/or regulations for those agricultural chemicals and quantities that are not regulated under existing programs. IDA, IDT. Policy II-B. 2. Encourage beneficial uses of spilled material. IDA,DEQ. Policy II-B. 3. Develop informational, educational, and research programs which address ground water protection from agricultural chemical spills. All levels. Policy II-B. 4. Encourage the utilization of pertinent research results. All levels. Policy II-B. 5. Upgrade IDWR programs.

Potential Agricultural Chemical Source	Ground Water Quality Impact Concerns	Existing Programs Pertinent to Source	Recommendations to Address Program Deficiencies/Agricultural Chemical Policy Number
9. URBAN/NONAGRICULTURAL USES **(roadside weed control, right-of-ways, golf courses, residential, commercial, etc.)**	Infiltration of agricultural chemicals, an ag chemical release, or its chemical constituents through the unsaturated zone; or entry by direct pathways such as poorly constructed wells, inadequate water system backsiphoning protection, improper cross connection, and surface waters which are hydrologically connected to ground water.	1. FIFRA; labeling. IDA, EPA. 2. IDA; Chapter 34, pesticide law (commercial applicators). IDA. 3. Recommended guidelines presented in federal and state documents, agricultural journals, and from the agrichemical industry. 4. Community awareness programs. IDA, CES, Industry.	1. Research studies to determine degree of ground water contamination in urban areas. DEQ, IDA. Policy II-B. 2. Research studies to identify alternative methods of urban and nonagricultural uses of agricultural chemicals. CES, Industry, EPA. Policy II-B. 3. develop informational, educational, and training programs for commercial and residential users. All entities. Policy II-B. 4. Conduct urban pesticide sales study. IDA. Policy II-B. 5. Increased development of outreach programs for information and education. CES, IDA, EPA. Policy II-B.

Potential Agricultural Chemical Source	Ground Water Quality Impact Concerns	Existing Programs Pertinent to Source	Recommendations to Address Program Deficiencies/Agricultural Chemical Policy Number
10. LAND APPLIED WASTE AND WASTEWATER **(all waste management operations which employ land application for the benefit of crop production.** **(i.e., aquaculture waste, sludge and septage, animal waste, plant by-products, etc.)**	Application of waste and wastewater in excess of crop needs.	1. EPA; NPDES permit. EPA, DEQ. 2. Idaho water quality standards and wastewater treatment requirements. DEQ, technical advisory committee. 3. Idaho wastewater land application permit regulations. DEQ. 4. USDA SCS, agricultural waste management. FOTG. USDA SCS. 5. IDWR-water right permit requirements.	1. Expand guidance, rules and regulations, for land application of waste and wastewater management from processing plants, CAFO's and aquaculture operations and other nonregulated land application activities to protect ground water quality. DEQ, EPA, IDA. Policy II-B. 2. Refine BMPs. SCC technical committee. Policy II-B. 3. Develop an MOU between appropriate federal/state/local agencies regarding agency roles and responsibilities for land applied waste and wastewater. Policy II-B. 4. Address the ground water quality protection shortcomings of the NPDES Permit. DEQ, EPA. Policy II-B. 5. Research to identify alternative methods of land application. CES, DEQ, IDA. Policy II-B. 6. Develop informational and educational programs for ground water quality protection from land applied waste and wastewater. All levels. Policy II-B.

Potential Agricultural Chemical Source	Ground Water Quality Impact Concerns	Existing Programs Pertinent to Source	Recommendations to Address Program Deficiencies/Agricultural Chemical Policy Number
11. AGRICULTURAL WASTES DISPOSAL **(agricultural wastes not addressed in the Agricultural Chemical Waste Disposal, Injection Wells and Other Disposal Methods, and Land Applied Waste and Wastewater categories; for example, treated seed, animal carcasses and crop residue)**	Infiltration of contaminants associated with such wastes	1. IDHW Idaho state solid waste regulations. DEQ, local government. 2. RCRA, Subtitle D. DEQ, EPA. 3. Guidelines/BMPs. IDA. 4. UIC permits and regulations, IDWR.	1. Develop educational and informational programs which address proper disposal of agricultural wastes. CES, IDA. Policy II-B. 2. Evaluate effectiveness of existing programs/regulations for ground water quality protection by appropriate agencies/industry. IDA, DEQ, CES, EPA. Policy II-B. 3. Expand and develop guidelines for ground water quality protection from agricultural wastes. DEQ, IDA, CES. Policy II-B.

Potential Agricultural Chemical Source	Ground Water Quality Impact Concerns	Existing Programs Pertinent to Source	Recommendations to Address Program Deficiencies/Agricultural Chemical Policy Number
12. WELL CONSTRUCTION AND ABANDONMENT	Contamination of ground water via improperly constructed or abandoned wells.	1. Idaho Code and IDWR rules and regulations governing well construction standards. IDWR. 2. Idaho code and IDWR rules and regulations governing water well driller's licenses. IDWR. 3. IDHW Regulations for individual subsurface sewage disposal systems. DEQ. 4. IDHW Drinking water regulations for public systems. DEQ.	1. Update IDWR rules and regulations to better address water mixing between aquifers and siting of wells near potential contamination sources. IDWR. Policy II-B. 2. Increase support for education of IDWR regulatory personnel. IDWR. Policy II-B. 3. Expand public and driller awareness and cooperation through increased communication with IDWR ground water personnel. IDWR. Policy II-B. 4. Increase support for field inspections for well construction and locating improperly abandoned wells. IDWR. Policy II-B.

APPENDIX B—TABLE 2
THREE PATHWAYS OF FEEDBACK LOOP APPROACH

FIGURE 1

"PREVENTION FLOWCHART"

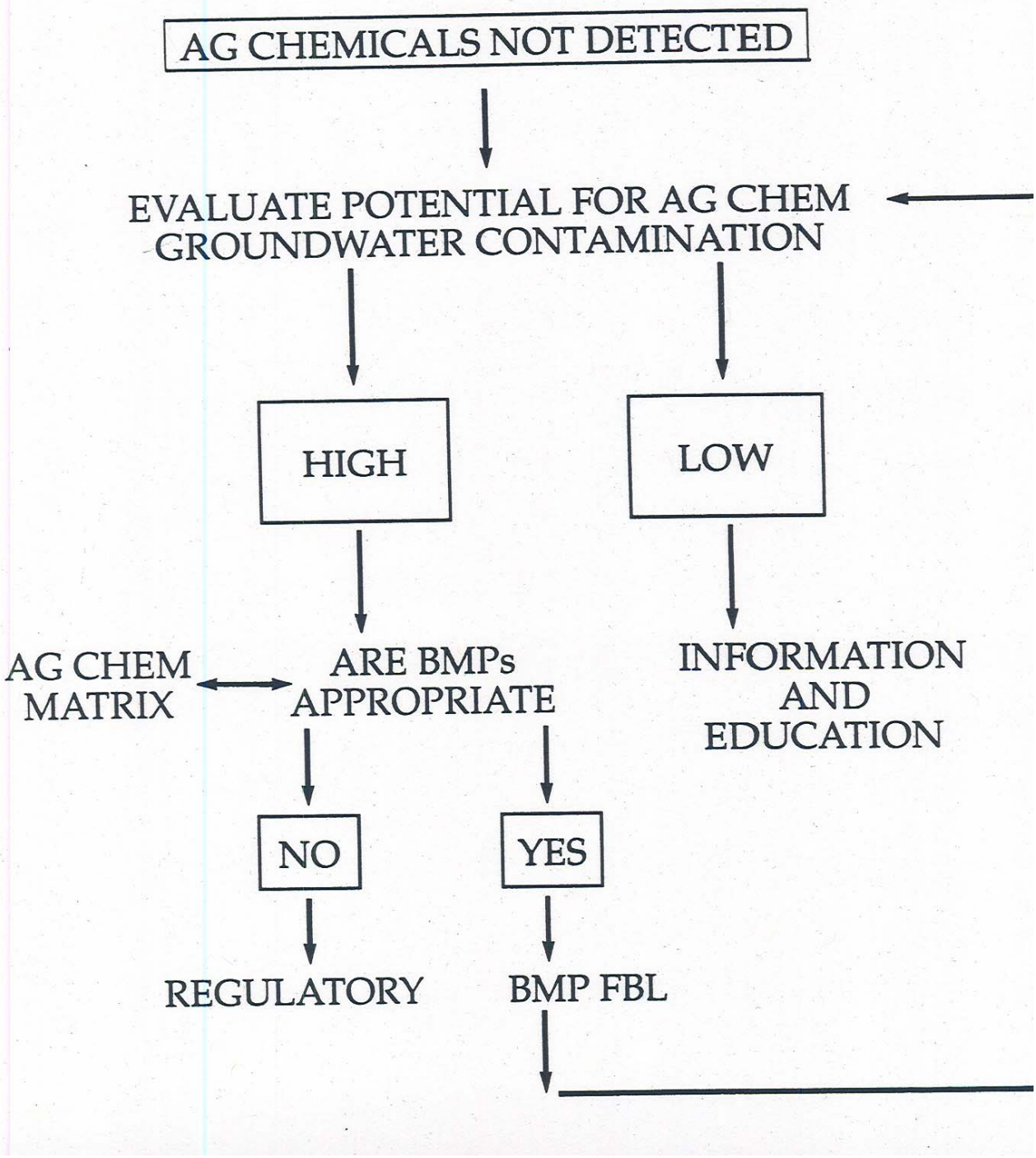

FIGURE 2

"RESPONSE FLOWCHART"

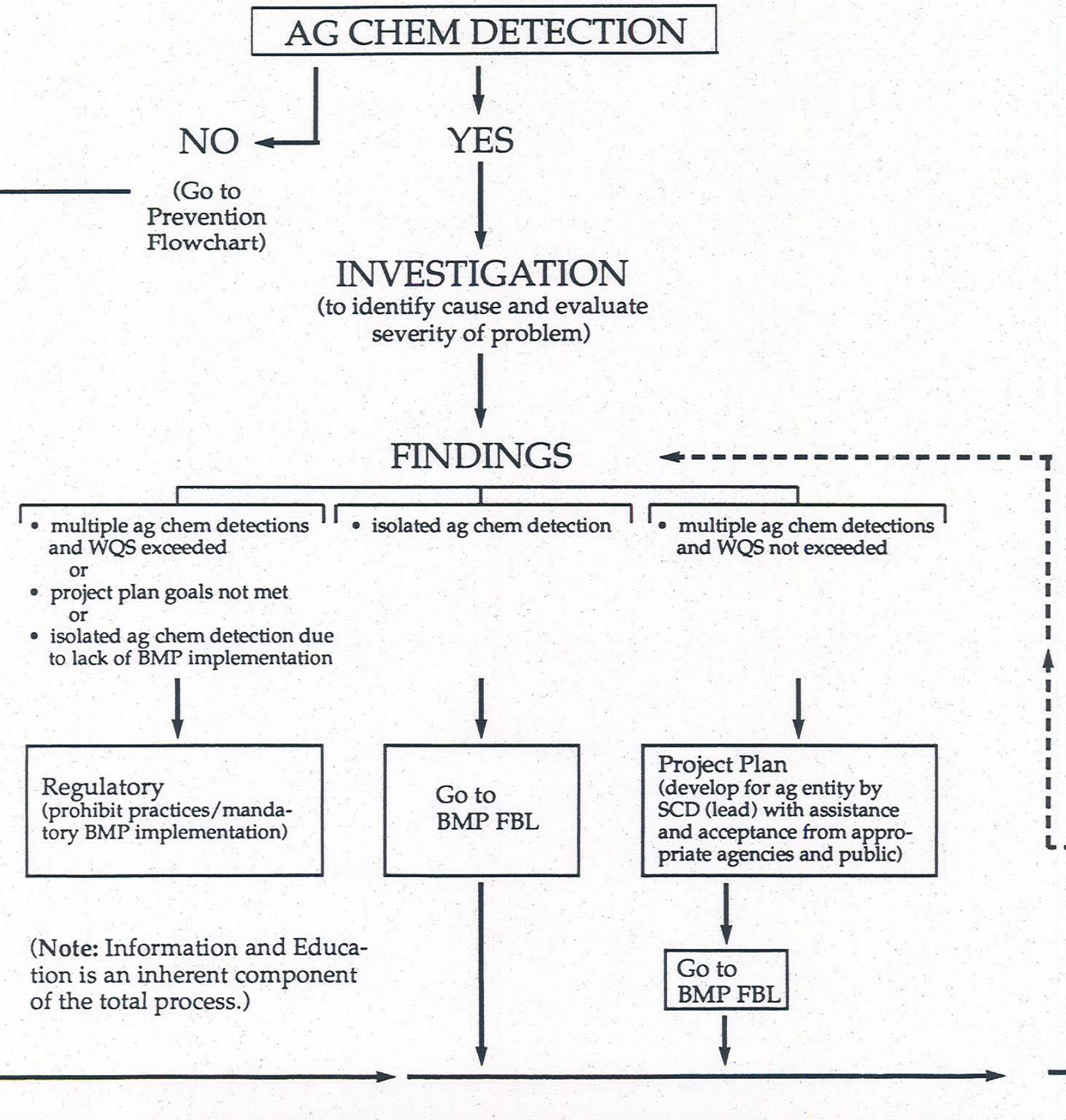

FIGURE 3

"BMP FEEDBACK LOOP"